

Virginia Title V Operating Permit

Until such time as this permit is reopened and revised, modified, revoked, terminated or expires, the permittee is authorized to operate in accordance with the terms and conditions contained herein. This permit is issued under the authority of Title 10.1, Chapter 13, §10.1-1322 of the Air Pollution Control Law of Virginia. This permit is issued consistent with the Administrative Process Act, and 9 VAC 5-80-50 through 9 VAC 5-80-300 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution of the Commonwealth of Virginia.

Authorization to operate a Stationary Source of Air Pollution as described in this permit is hereby granted to:

Permittee Name:	Roanoke Electric Steel Corporation	Registration No.:	20131
Facility Name:	Roanoke Electric Steel	AIRS Number:	51-161-0004
Facility Location:	Westside Boulevard Roanoke City, Virginia	Permit Number:	VA-20131

January 1, 2002

Effective Date

January 1, 2007

Expiration Date

December 26, 2001

Dennis H. Treacy

Signature Date

Director, Department of Environmental Quality

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I. Facility Information

Permittee

Roanoke Electric Steel Corporation
P.O. Box 13948
Roanoke, Virginia 24038

Responsible Official

Donald G. Smith
Chairman & CEO

Facility

Roanoke Electric Steel
Westside Boulevard
Roanoke City, Virginia

Contact Person

Karen Canody
Director of Environmental Affairs
(540) 342-1831

Registration Number: 20131

AIRS Identification Number: 51-161-0004

Facility Description: SIC Code 3312 – Establishments primarily engaged in manufacturing hot metal, pig iron and silvery pig iron from iron ore, iron and steel scrap and iron pellets; converting pig iron, scrap iron, and scrap steel into steel; and in hot-rolling iron and steel into basic shapes.

RES is a steel mini-mill, primarily engaged in the manufacture and rolling of steel; there are no foundry or casting operations at this facility. The plant melts scrap steel such as shredded automobiles in either of its two electric arc furnaces (EAF). The two EAFs are the largest emissions sources at the plant. The other large source of process emissions is the billet reheat furnace (BRF) which is heated by natural gas and No. 2 Fuel Oil. This furnace heats steel billets for hot rolling at the Rolling Mill. The No. 1 BRF was built in 1987 and modified in 1994 pursuant to a permit. The No. 2 BRF is authorized for construction as a modification to BRF No. 1, or a replacement for BRF No. 1 under a PSD permit issued on November 6, 1998 as modified on January 30, 2001. The amended permit increased the amount of No. 2 Fuel Oil that could be burned by BRF No. 1 and lowered the allowable sulfur content of the fuel oil. The amendment also added the option for using the same low sulfur No. 2 Fuel Oil to BRF No. 2, which was previously permitted for Natural Gas only.

The EAFs at RES are designated as Number 4 (presently limited to 175,200 tons per year throughput and 26 tons per hour) and Number 5. EAF #5 is augmented by the #5 Ladle Metallurgical Station (LMS#5). EAF #5 is the larger of the two furnaces, with a nominal rated capacity of 100 tons of steel per hour and limited to 876,000 tons of molten steel per year. A separate baghouse controls particulate emissions from each furnace. The #5 EAF is presently operating under a PSD and NSPS Subpart AAa permit which was issued on November 6, 1998, and amended January 30, 2001, allowing RES to increase the nominal capacity of the #5 EAF from 70 to 100 tons per hour.

II. Emission Units

Equipment to be operated consists of:

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
Fuel Burning Equipment - Not Applicable							
Process Equipment & Process Heaters							
BRF #1	001	Billet Reheat Furnace #1	135x10 ⁶ Btu/hr 90 tons steel/hr	Low NO _x burners/ Clean Fuel (NG & #2 Fuel Oil)		NO _x / SO ₂	PSD 11/6/1998 as amended 1/30/2001
BRF #2	001	Billet Reheat furnace #2	190x10 ⁶ Btu/hr 160 tons steel/hr	Ultra-Low NO _x burners/ Clean Fuel (NG & #2 Fuel Oil)		NO _x / SO ₂	PSD 11/6/1998 as amended 1/30/2001
EU-3	NA.	Ladle Preheaters (2)	11.2x10 ⁶ Btu/hr for each unit	Clean Fuels(NG & #2 Fuel Oil)		SO ₂	
EU-4	NA.	Tundish Preheaters 1 & 2	49.08x10 ⁶ Btu/hr for each unit	Clean Fuels(NG & #2 Fuel Oil)			
EAF #4	004	Electric Arc Furnace #4	26 tons steel/hr	Baghouse #3	PCD-3	Particulate	9/6/1973
EAF #5	005	Electric Arc Furnace #5	100 tons steel/hr	DEC/ Baghouse	PCD-4	CO/ Particulate	PSD 11/6/1998 as amended 1/30/2001
LMS #5	007	Ladle Metallurgical Station #5	100 tons steel/hr	Baghouse	PCD-7	Particulate	PSD 11/6/1998 as amended 1/30/2001
EU-8	008	Slag Building Fugitive	400 tons/day	Venturi Scrubber	PCD-8	Particulate	Exemption 10/27/1993
EU-10	005	Truck Load Out	18 tons/hr	Baghouse	PCD-4	Particulate	
EU-11	NA.	Melt Shop Building Fugitive	NA	Canopy Hoods			
EU-12	005	Rail Car Load Out	18 tons/hr	Baghouse	PCD-4	Particulate	Exemption
EU-13	NA.	Emergency Generator					
EU-14	014	Lime Silo	4 tons/hr		PCD-14	Particulate	

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
EU-15	015	Lime Silo	4 tons/hr		PCD-15	Particulate	
EU-16	016	Lime Silo	4 tons/hr		PCD-16	Particulate	
EU-25	005	Waste Dust Treatment System	18 tons/hr	Baghouse	PCD-4	Particulate	PSD 11/6/1998, as amended 1/30/2001 & NSR Mod. 8/25/1999

*The Size/Rated capacity and PCD efficiency is provided for informational purposes only, and is not an applicable requirement.

III. Fuel Burning Equipment Requirements – Not Applicable

IV. Process Equipment Requirements – Electric Arc Furnace No. 5

The following terms and conditions in this section of the permit, which apply to the EAF No. 5 and the Waste Dust handling System, are from 40 CFR Part 60 Subpart AAa. A current copy of 40 CFR Part 60 Subpart AAa has been attached. As used in this section and applied to EAF No. 5 and the Waste Dust Handling System, all terms shall have the meaning as defined in 40 CFR 60.2 and 40 CFR 60.271a.

A. Limitations

1. Operation of the EAF No. 5 shall be in compliance with this permit and the most recent revision of 40 CFR 60 Subpart AAa.
(40 CFR 60 Subpart AAa, 9 VAC 5-50-400, 9 VAC 5-80-110 & Condition 3 of 11/6/1998 PSD Permit as amended)
2. Carbon Monoxide (CO) emissions from the Electric Arc Furnace No. 5 shall be controlled by use of a Direct Evacuation Control (DEC) system with air gap. The width of the combustion air gap in the ductwork shall be set to maximize CO combustion.
(9 VAC 5-80-10 H, 9 VAC 5-80-110, 9 VAC 5-50-260, 9 VAC 5-80-1800 and Condition 6 of 11/6/1998 PSD Permit as amended)
3. Particulate emissions from the Electric Arc Furnace No. 5 shall be controlled by fabric filter. The fabric filter shall be provided with adequate access for inspection.
(9 VAC 5-80-10 H, 9 VAC 5-80-110, 9 VAC 5-50-260, 9 VAC 5-80-1800 and Condition 5 of 11/6/1998 PSD Permit as amended)
4. The approved fuel for the EAF No. 5 burners is Natural Gas. A change in the fuel may require a permit to modify and operate.
(9 VAC 5-80-10 H, 9 VAC 5-170-160, 9 VAC 5-80-110 & Condition 9 of 11/6/1998 PSD Permit as amended)
5. The annual production of molten steel from EAF #5 shall not exceed 876,000 tons per year, calculated monthly as the sum of each consecutive 12 month period.
(9 VAC 5-80-10 H, 9 VAC 5-170-160, 9 VAC 5-80-110 & Condition 12 of 11/6/1998 PSD Permit as amended)
6. Visible emissions from the EAF #5 baghouse (Baghouse No. 4) shall not exhibit three (3) percent or greater opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).
(9 VAC 5-50-20, 9 VAC 5-50-80, 9 VAC 5-80-110, 40 CFR 60.272a(a)(2) & Condition 25 of 11/6/1998 PSD Permit as amended)

7. Visible emissions from the melt shop due solely to the operation of EAF #5 shall not exhibit six (6) percent or greater opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).
(9 VAC 5-50-20, 9 VAC 5-80-110, 40 CFR 60.272a(a)(3) & Condition 26 of 11/6/1998 PSD Permit as amended)
8. Visible emissions from the dust handling systems for the EAF #5 shall not exhibit ten (10) percent or greater opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).
(9 VAC 5-50-20, 9 VAC 5-80-110, 40 CFR 60.272a(b) & Condition 27 of 11/6/1998 PSD Permit as amended)
9. Emissions from the operation of the Electric Arc Furnace No. 5 shall not exceed the limits specified below:

Total Suspended			
Particulate	0.0034 gr/dscf	9.80 lbs/hr	43.1 tons/yr
PM ₁₀		7.50 lbs/hr	32.8 tons/yr
Sulfur Dioxide		16.80 lbs/hr	73.6 tons/yr
Nitrogen Oxides (as NO ₂)		37.80 lbs/hr	165.6 tons/yr
Carbon Monoxide		240.00 lbs/hr	1052.2 tons/yr
Volatile Organic Compounds		30.00 lbs/hr	131.4 tons/yr
Lead (Pb)		0.30 lbs/hr	1.3 tons/yr
Fluoride		0.54 lbs/hr	2.4 tons/yr

(9 VAC 5-80-110, 9 VAC 5-50-260, 9 VAC 5-50-280, 9 VAC 5-80-1800, 40 CFR 60.272a(a)(1) and Condition 22 of 11/6/1998 PSD Permit as amended)

B. Monitoring (see also Facility Wide Conditions)

1. The permittee shall develop, submit for DEQ approval, and comply with a Baghouse Maintenance and Inspection Plan for the EAF#5 baghouse (Baghouse #4). The plan shall incorporate all applicable monitoring and inspection requirements contained in 40 CFR 60.274a (NSPS Subpart AAa). The plan shall include at a minimum: routine maintenance schedule, frequency of inspections, specific items to be examined, and time frame for repair of defects. If changes to plan are required, either due to changes to the NSPS Subpart AAa or due to operational changes at the facility, the permittee shall submit an updated plan for approval within 90 days of the effective date of the change to the NSPS Subpart AAa, or

within 90 days of implementation of operational changes at the facility.

(9 VAC 5-170-160, 9 VAC 5-80-110, 40 CFR 60.274a & Condition 34 of 11/6/1998 PSD Permit as amended)

2. A continuous emission monitor shall be installed to measure and record opacity. The opacity monitor shall be located in the exhaust of the baghouse controlling EAF #5 (Baghouse #4). The monitor shall be maintained, located, and calibrated in accordance with approved procedures (ref. 40 CFR 60.13). A thirty (30) day notification, prior to the demonstration of continuous monitoring system's performance, and subsequent notifications shall be submitted to the Director, West Central Region.
(9 VAC 5-50-40 F, 9 VAC 5-80-110, 40 CFR 60.273a(a) & Condition 19 of 11/6/1998 PSD Permit as amended)
3. EAF # 5 shall be equipped with a device to continuously measure the furnace static pressure. The device shall be installed in an appropriate location (inside the EAF or DEC prior to the introduction of ambient air) such that reproducible results will be obtained. The pressure monitoring device shall have an accuracy of +/-5 mm of water gauge over its normal operating range and shall be maintained and calibrated according to the manufacturer's instructions.
(9 VAC 5-80-110 & 40 CFR 60.274a (d))
4. All continuous monitoring systems shall be installed and operational prior to conducting initial performance tests. Performance evaluations of the continuous monitoring system must take place during the performance tests under 9 VAC 5-50-30 or within thirty (30) days thereafter. Two (2) copies of the performance evaluations report shall be submitted to the Director, West Central Region within forty-five (45) days of said evaluation. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation and calibration of the device.
(9 VAC 5-50-40, 9 VAC 5-80-110, 40 CFR 60.13 & Condition 20 of 11/6/1998 PSD Permit as amended)
5. The permittee shall check and record on a once-per-shift basis the furnace static pressure, the control system fan motor amperes and the damper position.
(9 VAC 5-80-110 & 40 CFR 60.274a)
6. The fabric filter shall be equipped with a device to continuously measure the differential pressure drop across the fabric filter. The device shall be installed in an accessible location and shall be maintained by the permittee such that it is in proper working order at all times. This baghouse is subject to a Baghouse Maintenance and Inspection Plan approved by the DEQ.
(9 VAC 5-170-160, 9 VAC 5-80-110 and Condition 5 of 11/6/1998 PSD Permit as amended)
7. An annual internal inspection shall be conducted on the ductwork by the permittee to insure structural integrity.
(9 VAC 5-80-110, 9 VAC 5-170-160 & Condition 6 of 11/6/1998 PSD Permit as amended)

C. Recordkeeping (see also Facility Wide Conditions)

D. Testing (see also Facility Wide Conditions)

1. Initial performance tests shall be conducted for PM, PM₁₀, CO, NO_x, SO₂, Pb and VOC from the EAF #5 to determine compliance with the emission limits contained in this permit. The tests shall be performed, and demonstrate compliance, within 60 days after achieving the maximum production rate but in no event later than 180 days after start-up of the permitted facility. Initial startup shall be the date at which the Number 5 melting line is capable of achieving 100 tons per hour production. Tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30 and 9 VAC 5-60-30 of State Regulations, and the test methods and procedures contained in each applicable section or subpart listed in 9 VAC 5-50-410 and 9 VAC 5-60-70. The details of the tests are to be arranged with the Director, West Central Region. The permittee shall submit a test protocol at least thirty (30) days prior to testing. Four (4) copies of the test results shall be submitted to the Director, West Central Region within 45 days after test completion and shall conform to the test report format enclosed with this permit.
(9 VAC 5-50-30, 9 VAC 5-80-10 J, 9 VAC 5-80-110, 40 CFR 60.8, 40 CFR 60.272a, 40 CFR 60.275a & Condition 14 of 11/6/1998 PSD Permit as amended)
2. Concurrently with the initial performance tests, Visible Emission Evaluations (VEE) in accordance with 40 CFR, Part 60, Appendix A, Method 9, shall also be conducted on the EAF #5. The details of the tests are to be arranged with Director, West Central Region. The permittee shall submit a test protocol at least thirty (30) days prior to testing. Should conditions prevent concurrent opacity observations, the Director, West Central Region shall be notified in writing, within seven (7) days, and visible emissions testing to be rescheduled within thirty (30) days. Rescheduled testing to be conducted under the same conditions (as possible) as the initial performance tests. Four (4) copies of the test result shall be submitted to the Director, West Central Region within 45 days after test completion and shall conform to the test report format enclosed with this permit.
(9 VAC 5-170-160, 9 VAC 5-50-30, 9 VAC 5-80-110, 40 CFR 60.11, 40 CFR 60.272a, 40 CFR 60.275a & Condition 15 of 11/6/1998 PSD Permit as amended)
3. A continuous opacity monitoring system may be used to satisfy visible emission initial performance compliance for EAF #5, in lieu of Test Method 9. Reported test data shall include averages of all six (6) minute continuous periods.
(9 VAC 5-170-160, 9 VAC 5-80-110, 40 CFR 60.11(e)(5) & Condition 21 of 11/6/1998 PSD Permit as amended)
4. Concurrently with the initial performance tests, Visible Emission Evaluations (VEE) in accordance with 40 CFR, Part 60, Appendix A, Method 9, shall also be conducted on the shop emissions (due solely to the operation of EAF #5) and the dust handling systems for the EAF #5 baghouse and the LMS #5 baghouse. The details of the tests are to be arranged with Director, West Central Region.
(9 VAC 5-170-160, 9 VAC 5-50-30, 9 VAC 5-80-110, 40 CFR 60.272a, 40 CFR 60.275a & Condition 18 of 11/6/1998 PSD Permit as amended)

E. Reporting (see also Facility Wide & General Conditions)

1. The permittee shall furnish written notification to the Director, West Central Region of:
 - a. The anticipated start-up date of the EAF #5 postmarked not more than 60 days nor less than thirty (30) days prior to such date.
 - b. The actual start-up date of the and EAF #5 within 10 days after such date.
 - c. The anticipated date of performance tests of the EAF #5 postmarked at least thirty (30) days prior to such date.

Copies of items b and c above shall also be sent to EPA. Notifications shall be sent to the following addresses:

U.S. EPA Region III
Air Protection Division (3AP00)
ATTN: 40 CFR 60 Subpart AAa Coordinator
1650 Arch Street
Philadelphia, PA 19103-2029

Department of Environmental Quality
Director, West Central Regional Office
ATTN: Air Compliance Manager – WCRO
3019 Peters Creek Road
Roanoke, Virginia 24019

(9 VAC 5-50-50 A, 9 VAC 5-170-160, 9 VAC 5-80-110, 40 CFR 60.7 & Condition 29 of 11/6/1998 PSD Permit as amended)

2. The permittee shall submit a written report of exceedances of the control device opacity to EPA and DEQ quarterly. For the purposes of these reports, exceedances are defined as all 6-minute periods during which the average opacity is three (3) percent or greater as determined by EPA Method 9 (reference 40 CFR 60, Appendix A, or six (6) percent if determined by the continuous opacity monitoring system, which has an accuracy of no greater than +/- three (3) percent. Reports shall be sent to the following addresses:

U.S. EPA Region III
Air Protection Division (3AP00)
ATTN: 40 CFR 60 Subpart AAa Coordinator
1650 Arch Street
Philadelphia, PA 19103-2029

Director, West Central Regional Office
Department of Environmental Quality
ATTN: Air Compliance Manager
3019 Peters Creek Road
Roanoke, Virginia 24019

(9 VAC 5-50-50 C, 9 VAC 5-170-160, 9 VAC 5-80-110, 40 CFR 60.7, 40 CFR 60.276a)

V. Process Equipment Requirements – LMS #5

(Ladle Metallurgical Station No. 5)

A. Limitations

1. Particulate emissions from the Ladle Metallurgical Station No. 5 (LMS#5) shall be controlled by fabric filter. The fabric filter shall be provided with adequate access for inspection.

(9 VAC 5-80-10 H, 9 VAC 5-80-110, 9 VAC 5-50-180, 9 VAC 5-50-260, 9 VAC 5-80-1800 and Condition 5 of 11/6/1998 PSD Permit as amended)

2. The annual production of molten steel from LMS #5 shall not exceed 876,000 tons per year, calculated monthly as the sum of each consecutive 12 month period.
(9 VAC 5-170-160, 9 VAC 5-80-110 & Condition 12 of 11/6/1998 PSD Permit as amended)
3. Visible emissions from the LMS #5 baghouse (Baghouse #5) shall not exhibit three (3) percent or greater opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).
(9 VAC 5-170-160, 9 VAC 5-50-20, 9 VAC 5-50-80, 9 VAC 5-50-290, 9 VAC 5-80-110 & Condition 25 of 11/6/1998 PSD Permit as amended)
4. Visible emissions from the dust handling system for the LMS #5 shall not exhibit ten (10) percent or greater opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).
(9 VAC 5-170-160, 9 VAC 5-50-20, 9 VAC 5-80-110 & Condition 27 of 11/6/1998 PSD Permit as amended)

5. Emissions from the operation of the LMS #5 shall not exceed the limits specified below:

Total Suspended Particulate	0.0052 gr/dscf	2.80 lbs/hr	12.2 tons/yr
PM-10		2.80 lbs/hr	12.2 tons/yr
Sulfur Dioxide		6.00 lbs/hr	26.3 tons/yr
Nitrogen Oxides (as NO ₂)		6.00 lbs/hr	26.3 tons/yr
Carbon Monoxide		48.00 lbs/hr	210.2 tons/yr
Volatile Organic Compounds		0.20 lbs/hr	0.88 tons/yr
Lead (Pb)		0.09 lbs/hr	0.40 tons/yr
Fluoride		0.16 lbs/hr	0.68 tons/yr

(9 VAC 5-80-110, 9 VAC 5-50-260 and Condition 23 of 11/6/1998 PSD Permit as amended)

B. Monitoring (see also Facility Wide Conditions)

The fabric filter shall be equipped with a device to continuously measure the differential pressure drop across the fabric filter. The device shall be installed in an accessible location and shall be

maintained by the permittee such that it is in proper working order at all times. The pressure drop shall be checked and recorded at least once per week.

(9 VAC 5-50-40 F, 9 VAC 5-80-110, 9 VAC 5-170-160 and Condition 5 of 11/6/1998 PSD Permit as amended)

C. Recordkeeping (see also Facility Wide Conditions)

D. Testing (see also Facility Wide Conditions)

1. Initial performance tests shall be conducted for PM, PM₁₀, CO, NO_x, SO₂, Pb and VOC from the LMS #5 to determine compliance with the emission limits contained in this permit. The tests shall be performed, and demonstrate compliance, within 60 days after achieving the maximum production rate but in no event later than 180 days after start-up of the permitted facility. (Initial startup shall be the date at which the Number 5 melting line is capable of achieving 100 tons per hour production.) Tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30 and 9 VAC 5-60-30 of State Regulations, and the test methods and procedures contained in each applicable section or subpart listed in 9 VAC 5-50-410 and 9 VAC 5-60-70. The details of the tests are to be arranged with the Director, West Central Region. The permittee shall submit a test protocol at least thirty (30) days prior to testing. Four (4) copies of the test results shall be submitted to the Director, West Central Region within 45 days after test completion and shall conform to the test report format enclosed with this permit.

(9 VAC 5-50-30, 9 VAC 5-80-10 J & Condition 14 of 11/6/1998 PSD Permit as amended)

2. Concurrently with the initial performance tests, Visible Emission Evaluations (VEE) in accordance with 40 CFR, Part 60, Appendix A, Method 9, shall also be conducted on the LMS #5. The details of the tests are to be arranged with Director, West Central Region. The permittee shall submit a test protocol at least thirty (30) days prior to testing. Should conditions prevent concurrent opacity observations, the Director, West Central Region shall be notified in writing, within seven (7) days, and visible emissions testing to be rescheduled within thirty (30) days. Rescheduled testing to be conducted under the same conditions (as possible) as the initial performance tests. Four (4) copies of the test result shall be submitted to the Director, West Central Region within 45 days after test completion and shall conform to the test report format enclosed with this permit.

(9 VAC 5-170-160, 9 VAC 5-50-30, 9 VAC 5-80-110 & Condition 15 of 11/6/1998 PSD Permit as amended)

E. Reporting (see also Facility Wide & General Conditions)

1. The permittee shall furnish written notification to the Director, West Central Region of:
 - a. The anticipated start-up date of the LMS #5 postmarked not more than 60 days nor less than thirty (30) days prior to such date.
 - b. The actual start-up date of the LMS #5 within 10 days after such date.

- c. The anticipated date of performance tests of the LMS #5 postmarked at least thirty (30) days prior to such date.

Notifications referenced above shall be sent to the following address:

Director, West Central Regional Office
Department of Environmental Quality
ATTN: Air Compliance Manager
3019 Peters Creek Road
Roanoke, Virginia 24019

(9 VAC 5-50-50 A, 9 VAC 5-170-160, 9 VAC 5-80-110 & Condition 29 of 11/6/1998 PSD Permit as amended)

VI. Process Equipment Requirements – Billet Reheat Furnaces #1

A. Limitations

1. NO_x emissions from Billet Reheat Furnace #1 shall be controlled by the installation of low NO_x burners, Bloom Engineering Co. model no. 1071 FTR burners, or equivalent, having a maximum NO_x emission rate of 275.2 pound per million cubic feet of natural gas. The furnace shall be provided with adequate access for inspection.
(9 VAC 5-80-10 H, 9 VAC 5-50-260, 9 VAC 5-50-280, 9 VAC 5-80-1800, 9 VAC 5-80-110 and Condition 4 of 11/6/1998 PSD Permit as amended)
2. The approved fuels for BRF #1 are Natural Gas and Distillate Oil. Distillate Oil shall have a maximum sulfur content of 0.05 % by weight per shipment. Distillate oil is defined as fuel oil that meets the specifications for fuel oil numbers 1 or 2 under the American Society for Testing and Materials "Standard Specification for Fuel Oils." The permittee shall obtain a certification from the fuel supplier with each shipment of distillate oil. Each fuel supplier certification shall include the following:
 - a. The name of the fuel supplier;
 - b. The date on which the distillate oil was received;
 - c. The amount of distillate oil delivered in the shipment;
 - d. A statement that the distillate oil complies with the American Society for Testing and Materials specifications for numbers 1 or 2 fuel oil; and,
 - e. The sulfur content of the distillate oil.

(9 VAC 5-50-260, 9 VAC 5-50-280, 9 VAC 5-170-160, 9 VAC 5-80-110 & Condition 8 of 11/6/1998 PSD Permit as amended)

3. BRF #1 shall consume no more than 664.54×10^6 cubic feet per year of natural gas or 900,000 gallons of No. 2 fuel oil per year, calculated monthly as the sum of each consecutive 12 month period. When both natural gas and No. 2 fuel oil are consumed in the same year, consumption of natural gas shall be limited by the equation below:

$$Y = 664.54 \times 10^6 - (286 \times \text{gallons No. 2 fuel oil in 12 month period})$$

where, Y = cubic feet per year of natural gas allowed

(9 VAC 5-80-10 H, 9 VAC 5-50-260, 9 VAC 5-50-280, 9 VAC 5-170-160, 9 VAC 5-80-110 & Condition 11 of 11/6/1998 PSD Permit as amended)

4. The existing Billet Reheat Furnace (BRF #1) is authorized to operate until replaced by, or reconstructed as, BRF #2. If a new unit is constructed, BRF #1 shall be shut down and reactivation of BRF #1 will require a permit.
(9 VAC 5-80-110 & Condition 7 of 11/6/1998 PSD Permit as amended)
5. The annual production of rolled steel from the BRF #1 shall not exceed 600,000 tons per year, calculated monthly as the sum of each consecutive 12 month period.
(9 VAC 5-80-10 H, 9 VAC 5-50-260, 9 VAC 5-50-280, 9 VAC 5-170-160, 9 VAC 5-80-110 & Condition 13 of 11/6/1998 PSD Permit as amended)
6. Visible emissions from BRF #1 shall not exceed ten (10) percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed twenty (20) percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).
(9 VAC 5-170-160, 9 VAC 5-50-80, 9 VAC 5-80-110 and 9 VAC 5-50-290 & Condition 28 of 11/6/1998 PSD Permit as amended)
7. Emissions from the operation of the BRF #1 shall not exceed the limits specified below:

Total Suspended Particulate	3.8 lbs/hr	12.6 tons/yr
PM-10	3.8 lbs/hr	12.6 tons/yr
Sulfur Dioxide	4.6 lbs/hr	3.4 tons/yr
Nitrogen Oxides (as NO ₂)	53.1 lbs/hr	96.0 tons/yr
Carbon Monoxide	4.8 lbs/hr	17.4 tons/yr

Volatile Organic 0.9 lbs/hr 3.0 tons/yr
Compounds

(9 VAC 5-50-260, 9 VAC 5-50-280, 9 VAC 5-80-110, 9 VAC 5-170-160 and Condition 24 of 11/6/1998 PSD Permit as amended)

B. Monitoring (see also Facility Wide Conditions)

C. Recordkeeping (see also Facility Wide Conditions)

D. Testing (see also Facility Wide Conditions)

E. Reporting (see also Facility Wide & General Conditions)

VII. Process Equipment Requirements – Billet Reheat Furnaces # 2

A. Limitations

1. NO_x emissions from Billet Reheat Furnace #2 shall be controlled by the use of Ultra-low NO_x burners and Flue Gas Recirculation (FGR). The furnace shall be provided with adequate access for inspection.
(9 VAC 5-80-10 H, 9 VAC 5-50-260, 9 VAC 5-50-280, 9 VAC 5-80-1800, 9 VAC 5-80-110 and Condition 4 of 11/6/1998 PSD Permit as amended)
2. The approved fuels for BRF #2 are Natural Gas and Distillate Oil. Distillate Oil shall have a maximum sulfur content of 0.05 % by weight per shipment. Distillate oil is defined as fuel oil that meets the specifications for fuel oil numbers 1 or 2 under the American Society for Testing and Materials "Standard Specification for Fuel Oils." The permittee shall obtain a certification from the fuel supplier with each shipment of distillate oil. Each fuel supplier certification shall include the following:
 - a. The name of the fuel supplier;
 - b. The date on which the distillate oil was received;
 - c. The amount of distillate oil delivered in the shipment;
 - d. A statement that the distillate oil complies with the American Society for Testing and Materials specifications for numbers 1 or 2 fuel oil; and,
 - e. The sulfur content of the distillate oil.

(9 VAC 5-50-260, 9 VAC 5-50-280, 9 VAC 5-170-160, 9 VAC 5-80-110 & Condition 8 of 11/6/1998 PSD Permit as amended)

3. BRF #2 shall consume no more than 990×10^6 cubic feet per year of natural gas or 1,068,000 gallons of No. 2 fuel oil, calculated monthly as the sum of each consecutive 12

month period. When both natural gas and No. 2 fuel oil are consumed in the same year, consumption of natural gas shall be limited by the equation below:

$$Y = 990.00 \times 10^6 - (286 \times \text{gal. No. 2 fuel oil in 12 month period})$$

where, Y = cubic feet per year of natural gas allowed.

(9 VAC 5-80-10 H, 9 VAC 5-50-260, 9 VAC 5-50-280, 9 VAC 5-170-160, 9 VAC 5-80-110 & Condition 11 of 11/6/1998 PSD Permit as amended)

4. The annual production of rolled steel from the BRF #2 shall not exceed 900,000 tons per year, calculated monthly as the sum of each consecutive 12 month period.
(9 VAC 5-80-10 H, 9 VAC 5-50-260, 9 VAC 5-50-280, 9 VAC 5-170-160, 9 VAC 5-80-110 & Condition 13 of 11/6/1998 PSD Permit as amended)
5. Visible emissions from BRF #2 shall not exceed ten (10) percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed twenty (20) percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).
(9 VAC 5-170-160, 9 VAC 5-50-80, 9 VAC 5-80-110 and 9 VAC 5-50-290 & Condition 28 of 11/6/1998 PSD Permit as amended)
6. Emissions from the operation of the BRF #2 shall not exceed the following:

Total Suspended Particulate	6.72 lbs/hr	18.9 tons/yr
PM-10	4.70 lbs/hr	13.2 tons/yr
Sulfur Dioxide (Natural Gas)	0.11 lbs/hr	
(#2 Fuel Oil)	8.3 lbs/hr	4.0 tons/yr (NG and #2 Fuel Oil)
Nitrogen Oxides (as NO ₂)	39.9 lbs/hr	104.0 tons/yr
Carbon Monoxide	9.94 lbs/hr	25.9 tons/yr
Volatile Organic Compounds	1.60 lbs/hr	4.5 tons/yr

(9 VAC 5-50-260, 9 VAC 5-50-280, 9 VAC 5-80-110, 9 VAC 5-170-160 and Condition 24 of 11/6/1998 PSD Permit as amended)

B. Monitoring (see also Facility Wide Conditions)

C. Recordkeeping (see also Facility Wide Conditions)

D. Testing (see also Facility Wide Conditions)

1. Initial performance tests shall be conducted for PM, PM₁₀ and NO_x from the BRF#2 to determine compliance with the emission limits contained in this permit. The tests shall be performed, and demonstrate compliance, within 60 days after achieving the maximum production rate but in no event later than 180 days after start-up of the permitted facility. Tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30 and 9 VAC 5-60-30 of State Regulations, and the test methods and procedures contained in each applicable section or subpart listed in 9 VAC 5-50-410 and 9 VAC 5-60-70. The details of the tests are to be arranged with the Director, West Central Region. The permittee shall submit a test protocol at least thirty (30) days prior to testing. Four (4) copies of the test results shall be submitted to the Director, West Central Region within 45 days after test completion and shall conform to the test report format enclosed with this permit.
(9 VAC 5-50-30 and 9 VAC 5-80-10 J, 9 VAC 5-80-110 & Condition 16 of 11/6/1998 PSD Permit as amended)
2. Concurrently with the initial performance tests, Visible Emission Evaluations (VEE) in accordance with 40 CFR, Part 60, Appendix A, Method 9, shall also be conducted on the BRF#2. The details of the tests are to be arranged with Director, West Central Region. The permittee shall submit a test protocol at least thirty (30) days prior to testing. The evaluation shall be performed within sixty (60) days of achieving maximum operation, but no later than 180 days after initial start up. Should conditions prevent concurrent opacity observations, the Director, West Central Region shall be notified in writing, within seven (7) days, and visible emissions testing to be rescheduled within thirty (30) days. Rescheduled testing to be conducted under the same conditions (as possible) as the initial performance tests. Four (4) copies of the test result shall be submitted to the Director, West Central Region within 45 days after test completion and shall conform to the test report format enclosed with this permit.
(9 VAC 5-170-160, 9 VAC 5-50-30, 9 VAC 5-80-110 & Condition 17 of 11/6/1998 PSD Permit as amended)

E. Reporting (see also Facility Wide Conditions)

1. The permittee shall furnish written notification to the Director, West Central Region of:
 - a. The actual date on which construction/ modification of the BRF #2 commenced within 10 days after such date.
 - b. The anticipated start-up date of the BRF #2 postmarked not more than 60 days nor less than thirty (30) days prior to such date.
 - c. The actual start-up date of the BRF #2 within 10 days after such date.

- d. The anticipated date of performance tests of the BRF #2 postmarked at least thirty (30) days prior to such date.

Initial notifications shall be sent to the following address:

Director, West Central Regional Office
Department of Environmental Quality
ATTN: Air Compliance Manager
3019 Peters Creek Road
Roanoke, Virginia 24019

(9 VAC 5-170-160, 9 VAC 5-80-110 & Condition 29 of 11/6/1998 PSD Permit as amended)

VIII. Process Equipment Requirements – Electric Arc Furnace No. 4

A. Limitations

1. Particulate emissions from the EAF #4 shall be controlled by fabric filter. The fabric filter shall be provided with adequate access for inspection.
(9 VAC 5-80-110, 9 VAC 5-40-260 and 9 VAC 5-170-160)
2. The EAF #4 annual production of molten steel shall not exceed 175,200 tons per year, calculated monthly as the sum of each consecutive twelve (12) month period.
(9 VAC 5-80-110, 9 VAC 5-40-260 and 9 VAC 5-170-160)
3. Visible emissions from the EAF #4 (Baghouse #3) shall not exceed 20% opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30% opacity.
(9 VAC 5-40-80 and 9 VAC 5-80-110)
4. Emissions from the operation of the EAF #4 shall not exceed the limits specified below:

Total Suspended Particulate	36.38 lbs/hr	157.7 tons/yr
PM-10	36.38 lbs/hr	157.7 tons/yr
Sulfur Dioxide	2,000 ppm in stack	

(9 VAC 5-40-260 C, 9 VAC 5-40-280 A, 9 VAC 5-80-110)

B. Monitoring (see also Facility Wide Conditions)

Fabric Filters: The fabric filter shall be equipped with a device to continuously measure the differential pressure drop across the fabric filter. The device shall be installed in an accessible

location and shall be maintained by the permittee such that it is in proper working order at all times. The pressure drop shall be checked and recorded at least once per week.
(9 VAC 5-80-110 and 9 VAC 5-170-160)

C. Recordkeeping (see also Facility Wide Conditions)

D. Testing (see also Facility Wide Conditions)

E. Reporting (see also Facility Wide Conditions)

IX. Process Equipment Requirements – Miscellaneous Processes

(Lime Storage Silos, Ladle & Tundish Preheaters and Slag Building)

A. Limitations

1. Particulate emissions from the Slag Handling Building shall be controlled by a venturi scrubber. The scrubber shall be provided with adequate access for inspection.
(9 VAC 5-80-110, 9 VAC 5-40-270 and 9 VAC 5-170-160)
2. The approved fuels for the Ladle & Tundish Preheaters are Natural Gas, No. 2 Fuel Oil and Diesel Fuel. The Tundish Preheaters are also authorized to burn propane. A change in the fuel may require a permit to modify and operate.
(9 VAC 5-80-110 and 9 VAC 5-170-160)
3. Visible emissions from the Lime Storage Silos, Ladle Preheaters and Slag Handling Building shall not exceed 20% opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30% opacity.
(9 VAC 5-40-80, 9 VAC 5-80-110 and 9 VAC 5-40-320)
4. Sulfur Dioxide emissions from the operation of the Ladle & Tundish Preheaters shall not exceed the following:

$$S=2.64K$$

S = allowable sulfur emissions in lbs./hr.

K = actual heat input at total capacity expressed in Btu x 10⁶ per hour

(9 VAC 5-80-110 and 9 VAC 5-40-280)

B. Monitoring (see also Facility Wide Conditions)

1. Scrubbers: The scrubber shall be equipped with a flow meter, blow down flow meter, high and low water level alarms and a device to continuously measure the differential air pressure drop through the scrubber. Blow down solution flow rate and air pressure drop shall be checked and recorded at least once per week.
(9 VAC 5-80-110)
2. For the Ladle and Tundish Preheaters, calculate annual SO₂ emissions monthly, as the sum of the previous consecutive 12 month period.
(9 VAC 5-80-110)

C. Recordkeeping (see also Facility Wide Conditions)

D. Testing (see also Facility Wide Conditions)

E. Reporting (see also Facility Wide Conditions)

X. Facility Wide Conditions

A. Limitations

1. In order to minimize the duration and frequency of excess emissions due to malfunctions of process equipment or air pollution control equipment, the permittee shall:
 - a. Develop an overall maintenance schedule and maintain records of all scheduled and non-scheduled maintenance. These records shall be maintained on site for a period of five (5) years and shall be made available to DEQ personnel upon request.
 - b. Maintain an inventory of spare parts that are needed to minimize duration of air pollution control equipment breakdowns.
(9 VAC 5-170-160, 9 VAC 5-80-110 & Condition 34 of 11/6/1998 PSD Permit as amended)
2. The permittee shall have available written operating procedures for the related air pollution control equipment. Operators shall be trained in the proper operation of all such equipment and shall be familiar with the written operating procedures. These procedures shall be based on the manufacturer's recommendations, at minimum. The permittee shall maintain records of training provided including names of trainees, date of training and nature of training.
(9 VAC 5-170-160, 9 VAC 5-80-110 and Condition 35 of 11/6/1998 PSD Permit as amended)

B. Monitoring

Visible Emissions: - Each emissions unit with a visible emissions requirement in this permit shall be observed visually at least once each calendar week in which the emissions unit operates. The visual observations shall be conducted using 40 CFR 60 Appendix A Method 22 techniques

(condensed water vapor/steam is not a visible emission) for at least a brief time to only identify the presence of visible emissions, unless the unit is monitored by a 40 CFR 60 Appendix A continuous opacity monitor. Each emissions unit in the Method 22 technique observation having visible emissions shall be evaluated by conducting a 40 CFR 60 Appendix A Method 9 visible emissions evaluation (VEE) for at least six (6) minutes, unless corrective action is taken that achieves no visible emissions. 40 CFR 60 Appendix A Method 9 requires the observer to have a Method 9 certification that is current at the time of the VEE. If any of these six (6) minute VEE averages exceed the unit's opacity limitation, a VEE shall be conducted on these emissions for at least 3 six minute periods (at least 18 minutes). All visible emission observations, VEE results, and corrective actions taken shall be recorded.
(9 VAC 5-80-110E)

C. Recordkeeping

The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Director, West Central Regional Office. These records shall include, but are not limited to:

1. Annual throughput of molten steel for EAF #4 and EAF #5, calculated monthly as the sum of each consecutive twelve (12) month period.
2. All data recorded as a result of the continuous opacity monitor on Baghouse #4 controlling the EAF #5.
3. Per shift records of furnace static pressure, fan motor amperes and damper positions for the EAF #5.
4. Monthly operational inspections and annual integrity inspections of the ductwork for the EAF #5.
5. Annual throughput of steel billets for BRF #1 and BRF #2, calculated monthly as the sum of each consecutive twelve (12) month period.
6. Initial performance test results and initial notifications.
7. Monitoring data and compliance test results.
8. Equipment checks and inspections.
9. Records of weekly visible emission observations, Visible Emission Evaluations, if required, and any corrective action taken.
10. Scheduled/non-scheduled maintenance and any corrective actions taken as a result monitoring activities.
11. Operating instructions for pollution control equipment and records of operator training.

12. Annual throughput of No. 2 Fuel oil/Diesel Fuel to BRF #1 and BRF #2, calculated monthly as the sum of each consecutive twelve (12) month period.
13. Annual throughput of Natural Gas to BRF #1 and BRF #2, calculated monthly as the sum of each consecutive twelve (12) month period.
14. The permittee shall obtain a certification from the fuel supplier with each shipment of distillate oil. Each fuel supplier certification shall include the following:
 - a. The name of the fuel supplier,
 - b. The date on which the oil was received,
 - c. The volume of distillate oil delivered in the shipment,
 - d. A statement that the oil complies with the American Society for Testing and Materials specifications for fuel oil numbers 1 and 2, and
 - e. The sulfur content of the oil.
15. Fuel oil shipments and fuel certifications for Tundish and Ladle Preheaters.
16. Pollutant-specific emission factors and formulas used to calculate actual emission rates for the purpose of determining compliance with each emission limit contained in this permit.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

(9 VAC 5-40-50, 9 VAC 5-50-50, 9 VAC 5-80-110, 9 VAC 5-80-110 F, 40 CFR 60.274a, 40 CFR 60.276a and Conditions 30 & 34 of 11/6/1998 PSD Permit as amended)

D. Testing

1. The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations.
(9 VAC 5-40-30, 9 VAC 5-50-30, 9 VAC 5-80-110 & 40 CFR 60.275a)
2. If compliance testing is conducted in addition to the monitoring specified in this permit, the permittee shall use standardized test methods in accordance with procedures approved by the DEQ.
(9 VAC 5-80-110)

E. Reporting (see specific process requirements & General Conditions)

XI. Insignificant Emission Units

The following emission units at the facility are identified in the application as insignificant emission units under 9 VAC 5-80-720:

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted	Rated Capacity
101	Scrap Handling	(9 VAC 5-80-720 B)	PM ₁₀	1,000,000 tpy
102	Fuel Tank	(9 VAC 5-80-720 B)	VOC	10,000 gal
103	Hydraulic Oil Tank	(9 VAC 5-80-720 B)	VOC	3,000 gal
104	Fuel Tank	(9 VAC 5-80-720 B)	VOC	7,500 gal
105	Fuel Tank	(9 VAC 5-80-720 B)	VOC	2,000 gal
106	Waste Oil Tank	(9 VAC 5-80-720 B)	VOC	1,000 gal
107	Gasoline Tank	(9 VAC 5-80-720 B)	VOC	550 gal
108	Waste Oil Tank	(9 VAC 5-80-720 B)	VOC	1,000
109	Alloy Storage Area	(9 VAC 5-80-720 B)	PM ₁₀	NA.
110	Refractory Storage	(9 VAC 5-80-720 B)	PM ₁₀	NA.
111	Alloy Handling Area	(9 VAC 5-80-720 B)	PM ₁₀	NA.
112	Mill Scale Separator	(9 VAC 5-80-720 B)	PM ₁₀	NA.
113	Rust Inhibitor Spray	(9 VAC 5-80-720 B)	VOC	150 gal/yr
114	LPG Tank	(9 VAC 5-80-720 B)	VOC	2,340 gal
115	Waste Oil Tank	(9 VAC 5-80-720 B)	VOC	275 gal
116	Fuel Oil Tank	(9 VAC 5-80-720 B)	VOC	550 gal

These insignificant emission units are presumed to be in compliance with all requirements of the federal Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping, or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

XII. Compliance Plan - Not Applicable

XIII. Permit Shield & Inapplicable Requirements

Compliance with the provisions of this permit shall be deemed compliance with all applicable requirements in effect as of the permit issuance date as identified in this permit. This permit shield covers only those applicable requirements covered by terms and conditions in this permit and the following requirements which have been specifically identified as being not applicable to this permitted facility:

Citation	Title of Citation	Description of Applicability
40 CFR 60.273a (d)	Emission Monitoring	DEC Exception for EAF #5
40 CFR 60.270 & 40 CFR 60.270a	NSPS Subpart AA & AAa	Not applicable to EAF#4 by date of manufacture

Nothing in this permit shield shall alter the provisions of §303 of the federal Clean Air Act, including the authority of the administrator under that section, the liability of the owner for any violation of applicable requirements prior to or at the time of permit issuance, or the ability to obtain information by the administrator pursuant to §114 of the federal Clean Air Act, (ii) the Board pursuant to §10.1-1314 or §10.1-1315 of the Virginia Air Pollution Control Law or (iii) the Department pursuant to §10.1-1307.3 of the Virginia Air Pollution Control Law.
(9 VAC 5-80-140)

XIV. General Conditions

A. Federal Enforceability

All terms and conditions in this permit are enforceable by the administrator and citizens under the federal Clean Air Act, except those that have been designated as only state-enforceable.
(9 VAC 5-80-110 N)

B. Permit Expiration

This permit has a fixed term of five years. The expiration date shall be the date five years from the date of issuance. Unless a timely and complete renewal application consistent, with 9 VAC 5-80-80, has been submitted, to the West Central Regional Office of the DEQ, by the owner, the right of the facility to operate shall be terminated upon permit expiration.

1. The owner shall submit an application for renewal at least six months but no earlier than eighteen months prior to the date of permit expiration.
2. If an applicant submits a timely and complete application for an initial permit or renewal under this section, the failure of the source to have a permit or the operation of the source without a permit shall not be a violation of Article 1, Part II of 9 VAC 5 Chapter 80, until the Board takes final action on the application under 9 VAC 5-80-150.
3. No source shall operate after the time that it is required to submit a timely and complete application under subsections C and D of 9 VAC 5-80-80 for a renewal permit, except in compliance with a permit issued under Article 1, Part II of 9 VAC 5 Chapter 80.
4. If an applicant submits a timely and complete application under section 9 VAC 5-80-80 for a permit renewal but the Board fails to issue or deny the renewal permit before the end of the term of the previous permit, (i) the previous permit shall not expire until the renewal permit has been issued or denied and (ii) all the terms and conditions of the previous permit, including any permit shield granted pursuant to 9 VAC 5-80-140, shall remain in effect from the date the application is determined to be complete until the renewal permit is issued or denied.

5. The protection under subsections F 1 and F 5 (ii) of section 9 VAC 5-80-80 F shall cease to apply if, subsequent to the completeness determination made pursuant section 9 VAC 5-80-80 D, the applicant fails to submit by the deadline specified in writing by the Board any additional information identified as being needed to process the application.

(9 VAC 5-80-80 B, C & F, 9 VAC 5-80-110 D & 9 VAC 5-80-170 B)

C. Recordkeeping and Reporting

1. All records of monitoring information maintained to demonstrate compliance with the terms and conditions of this permit shall contain, where applicable, the following:
 - a. The date, place as defined in the permit, and time of sampling or measurements.
 - b. The date(s) analyses were performed.
 - c. The company or entity that performed the analyses.
 - d. The analytical techniques or methods used.
 - e. The results of such analyses.
 - f. The operating conditions existing at the time of sampling or measurement.

(9 VAC 5-80-110 F)

2. Records of all monitoring data and support information shall be retained for at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

(9 VAC 5-80-110 F)

3. The permittee shall submit the results of monitoring contained in any applicable requirement to DEQ no later than **March 1** and **September 1** of each calendar year. This report must be signed by a responsible official, consistent with 9 VAC 5-80-80 G. Note that much of the recordkeeping required by this permit also serves as required periodic monitoring to determine emissions compliance and therefore needs to be addressed in the periodic reports. The details of the reports are to be arranged with the Director, West Central Regional Office. The reports shall include:
 - a. The time period included in the report. The time periods to be addressed are January 1 to June 30 and July 1 to December 31.
 - b. All deviations from permit requirements. For purposes of this permit, deviations include, but are not limited to:

- (1) Exceedance of emissions limitations or operational restrictions;
 - (2) Excursions from control device operating parameter requirements, as documented by continuous emission monitoring, periodic monitoring, or compliance assurance monitoring which indicates an exceedance of emission limitations or operational restrictions; or,
 - (3) Failure to meet monitoring, recordkeeping, or reporting requirements contained in this permit.
- c. If there were no deviations from permit conditions during the time period, the permittee shall include a statement in the report that “no deviations from permit requirements occurred during this semi-annual reporting period.”
- d. The report shall be sent to the following address:

Director, West Central Regional Office
Department of Environmental Quality
ATTN: Air Compliance Manager
3019 Peters Creek Road
Roanoke, VA 24019

(9 VAC 5-80-110 F)

D. Annual Compliance Certification

Exclusive of any reporting required to assure compliance with the terms and conditions of this permit or as part of a schedule of compliance contained in this permit, the permittee shall submit to EPA and to DEQ no later than **March 1** each calendar year a certification of compliance with all terms and conditions of this permit including emission limitation standards or work practices. The compliance certification shall comply with such additional requirements that may be specified pursuant to §114(a)(3) and §504(b) of the federal Clean Air Act. This certification shall be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

1. The time period included in the certification. The time period to be addressed is January 1 to December 31.
2. The identification of each term or condition of the permit that is the basis of the certification.
3. The compliance status.
4. Whether compliance was continuous or intermittent, and if not continuous, documentation of each incident of non-compliance.
5. Consistent with subsection 9 VAC 5-80-110 E, the method or methods used for determining the compliance status of the source at the time of certification and over the reporting period.

6. Such other facts as the permit may require to determine the compliance status of the source.

This annual compliance certification shall be sent to the following addresses:

Director, West Central Regional Office
Department of Environmental Quality
ATTN: Air Compliance Manager
3019 Peters Creek Road
Roanoke, VA 24019

Clean Air Act Title V Compliance Certification (3AP00)
U. S. Environmental Protection Agency, Region III
1650 Arch Street
Philadelphia, PA 19103-2029.

(9 VAC 5-80-110 K.5)

E. Permit Deviation Reporting

The permittee shall notify the Director, West Central Regional Office, within four (4) daytime business hours of any deviations from permit requirements which may cause excess emissions for more than one hour, including those attributable to upset conditions as may be defined in this permit. In addition, within 14 days of the occurrence, the permittee shall provide a written statement explaining the problem, any corrective actions or preventative measures taken, and the estimated duration of the permit deviation. The occurrence should also be reported in the next quarterly or semi-annual compliance monitoring report required by this permit.

(9 VAC 5-80-110 F.2 and 9 VAC 5-80-250)

F. Failure/Malfunction Reporting

If, for any reason, the affected facilities or related air pollution control equipment fails or malfunctions and may cause excess emissions for more than one hour, the owner shall notify the Director, West Central Regional Office, within four (4) daytime business hours of the occurrence. In addition, the owner shall provide a written statement, within 14 days, explaining the problem, corrective action taken, and the estimated duration of the breakdown/shutdown. The opacity limits in this permit apply at all times except during periods of startup, shutdown, malfunction and as otherwise provided in this permit.

(9 VAC 5-20-180 C & 9 VAC 5-80-250)

G. Startup, Shutdown, and Malfunction

At all times, including periods of startup, shutdown, soot blowing, and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Board, which may

include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

The opacity limits in this permit apply at all times except during periods of startup, shutdown, malfunction, and as otherwise provided in this permit.
(9 VAC 5-50-20, 9 VAC 5-40-20)

H. Malfunction as an Affirmative Defense

1. A malfunction constitutes an affirmative defense to an action brought for noncompliance with technology-based emission limitations if the conditions of paragraph 2 are met.
2. The affirmative defense of malfunction shall be demonstrated by the permittee through properly signed, contemporaneous operating logs, or other relevant evidence that show the following:
 - a. A malfunction occurred and the permittee can identify the cause or causes of the malfunction.
 - b. The permitted facility was at the time being properly operated.
 - c. During the period of malfunction, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit.
 - d. The permittee notified the board of the malfunction within two working days following the time when the emissions limitations were exceeded due to the malfunction. This notification shall include a description of the malfunction, any steps taken to mitigate emissions, and corrective actions taken. The notification may be delivered either orally or in writing. The notification may be delivered by electronic mail, facsimile transmission, telephone, telegraph, or any other method that allows the permittee to comply with the deadline. The notice fulfills the requirement of 9 VAC 5-80-110 F.2. b to report promptly deviations from permit requirements. This notification does not release the permittee from the malfunction reporting requirements under 9 VAC 5-20-180 C.
3. In any enforcement proceeding, the permittee seeking to establish the occurrence of a malfunction shall have the burden of proof. The provisions of this section are in addition to any malfunction, emergency or upset provision contained in any requirement applicable to the source.

(9 VAC 5-80-250)

I. Fugitive Dust Emission Standards

During the operation of a stationary source or any other building, structure, facility, or installation, no owner or other person shall cause or permit any materials or property to be

handled, transported, stored, used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions may include, but are not limited to, the following:

1. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land;
2. Application of asphalt, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which may create airborne dust; the paving of roadways and the maintaining of them in a clean condition;
3. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty material. Adequate containment methods shall be employed during sandblasting or other similar operations;
4. Open equipment for conveying or transporting material likely to create objectionable air pollution when airborne shall be covered or treated in an equally effective manner at all times when in motion; and,
5. The prompt removal of spilled or tracked dirt or other materials from paved streets and of dried sediments resulting from soil erosion.

(9 VAC 5-40-90 and 9 VAC 5-50-90)

J. Severability

The terms of this permit are severable. If any condition, requirement or portion of the permit is held invalid or inapplicable under any circumstance, such invalidity or inapplicability shall not affect or impair the remaining conditions, requirements, or portions of the permit.

(9 VAC 5-80-110 G.1)

K. Duty to Comply

The permittee shall comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the federal Clean Air Act or the Virginia Air Pollution Control Law or both and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or, for denial of a permit renewal application.

(9 VAC 5-80-110 G.2)

L. Need to Halt or Reduce Activity not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

(9 VAC 5-80-110 G.3)

M. Permit Action for Cause

1. This permit may be modified, revoked, reopened, and reissued, or terminated for cause as specified in 9 VAC 5-80-110 L, 9 VAC 5-80-240 and 9 VAC 5-80-260. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.
(9 VAC 5-80-110 G.4)
 2. Such changes that may require a permit modification and/or revisions include, but are not limited to, the following:
 - a. Erection, fabrication, installation, addition, or modification of an emissions unit (which is the source, or part of it, which emits or has the potential to emit any regulated air pollutant), or of a source, where there is, or there is potential of, a resulting emissions increase;
 - b. Reconstruction or replacement of any emissions unit or components thereof such that its capital cost exceeds 50% of the cost of a whole new unit;
 - c. Any change at a source which causes emission of a pollutant not previously emitted, an increase in emissions, production, throughput, hours of operation, or fuel use greater than those specifically allowed by the permit; or by 9 VAC 5-80-11, unless such an increase is authorized by an emissions cap; or any change at a source which causes an increase in emissions resulting from a reduction in control efficiency, unless such an increase is authorized by an emissions cap;
 - d. Any reduction of the height of a stack or of a point of emissions, or the addition of any obstruction which hinders the vertical motion of exhaust;
 - e. Any change at the source which affects its compliance with conditions in this permit, including conditions relating to monitoring, recordkeeping, and reporting;
 - f. Addition of an emissions unit which qualifies as insignificant by emissions rate (9 VAC 5-80-720 B) or by size or production rate (9 VAC 5-80-720 C); or,
 - g. Any change in insignificant activities, as defined by 9 VAC 5-80-90 D.1.a(1) and 9 VAC 5-80-720 B and 9 VAC 5-80-720 C.
- (9 VAC 5-80-110 G, 9 VAC 5-80-110 J, 9 VAC 5-80-240, and 9 VAC 5-80-260)

N. Property Rights

The permit does not convey any property rights of any sort, or any exclusive privilege.
(9 VAC 5-80-110 G.5)

O. Duty to Submit Information

1. The permittee shall furnish to the Board, within a reasonable time, any information that the Board may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Board copies of records required to be kept by the permit and, for information claimed to be confidential, the permittee shall furnish such records to the Board along with a claim of confidentiality.
(9 VAC 5-80-110 G.6)
2. Any document (including reports) required in a permit condition to be submitted to the Board shall contain a certification by a responsible official that meets the requirements of 9 VAC 5-80-80 G.
(9 VAC 5-80-110 K.1)

P. Duty to Pay Permit Fees

The owner of any source for which a permit under 9 VAC 5-80-50 through 9 VAC 5-80-300 was issued shall pay permit fees consistent with the requirements of 9 VAC 5-80-310 through 9 VAC 5-80-355. The actual emissions covered by the permit program fees for the preceding year shall be calculated by the owner and submitted to the Department by April 15 of each year. The calculations and final amount of emissions are subject to verification and final determination by the Department.
(9 VAC 5-80-110 H and 9 VAC 5-80-340 C)

Q. Alternative Operating Scenarios

Contemporaneously with making a change between reasonably anticipated operating scenarios identified in this permit, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions under each such operating scenario. The terms and conditions of each such alternative scenario shall meet all applicable requirements including the requirements of 9 VAC 5 Chapter 80, Article 1.
(9 VAC 5-80-110 J)

R. Inspection and Entry Requirements

The permittee shall allow DEQ, upon presentation of credentials and other documents as may be required by law, to perform the following:

1. Enter upon the premises where the source is located or emissions-related activity is conducted, or where records must be kept under the terms and conditions of the permit.
2. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of the permit.

3. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit.
4. Sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

(9 VAC 5-80-110 K.2)

S. Reopening For Cause

The permit shall be reopened by the Board if additional federal requirements become applicable to a major source with a remaining permit term of three years or more. Such reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 9 VAC 5-80-80 F.

1. The permit shall be reopened if the Board or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.
2. The permit shall be reopened if the administrator or the Board determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
3. The permit shall not be reopened by the Board if additional applicable state requirements become applicable to a major source prior to the expiration date established under 9 VAC 5-80-110 D.

(9 VAC 5-80-110 L)

T. Permit Availability

Within five days after receipt of the issued permit, the permittee shall maintain the permit on the premises for which the permit has been issued and shall make the permit immediately available to DEQ upon request.

(9 VAC 5-80-150 E)

U. Transfer of Permits

1. No person shall transfer a permit from one location to another, unless authorized under 9 VAC 5-80-130, or from one piece of equipment to another.
(9 VAC 5-80-160)
2. In the case of a transfer of ownership of a stationary source, the new owner shall comply with any current permit issued to the previous owner. The new owner shall notify the Board of the change in ownership within 30 days of the transfer and shall comply with the requirements of 9 VAC 5-80-200.
(9 VAC 5-80-160)

3. In the case of a name change of a stationary source, the owner shall comply with any current permit issued under the previous source name. The owner shall notify the Board of the change in source name within 30 days of the name change and shall comply with the requirements of 9 VAC 5-80-200.
(9 VAC 5-80-160)

V. Permit Revocation or Termination for Cause

A permit may be revoked or terminated prior to its expiration date if the owner knowingly makes material misstatements in the permit application or any amendments thereto or if the permittee violates, fails, neglects or refuses to comply with the terms or conditions of the permit, any applicable requirements, or the applicable provisions of 9 VAC 5 Chapter 80 Article 1. The Board may suspend, under such conditions and for such period of time as the Board may prescribe, any permit for any of the grounds for revocation or termination or for any other violations of these regulations.
(9 VAC 5-80-260)

W. Duty to Supplement or Correct Application

Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrections. An applicant shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete application was filed but prior to release of a draft permit.
(9 VAC 5-80-80 E)

X. Stratospheric Ozone Protection

If the permittee handles or emits one or more Class I or II substances subject to a standard promulgated under or established by Title VI (Stratospheric Ozone Protection) of the federal Clean Air Act, the permittee shall comply with all applicable sections of 40 CFR Part 82, Subparts A to F.
(40 CFR Part 82, Subparts A-F)

Y. Accidental Release Prevention

If the permittee has more, or will have more than a threshold quantity of a regulated substance in a process, as determined by 40 CFR 68.115, the permittee shall comply with the requirements of 40 CFR Part 68.
(40 CFR Part 68)

Z. Changes to Permits for Emissions Trading - NA.

AA. Emissions Trading - NA.

XV. State-Only Enforceable Requirements

The following terms and conditions are not required under the federal Clean Air Act or under any of its applicable federal requirements, and are not subject to the requirements of 9 VAC 5-80-290 concerning review of proposed permits by EPA and draft permits by affected states.

- 9 VAC 5-40-130 Odor (Existing Source)
- 9 VAC 5-40-160 Emission Standards for Toxic Pollutants (Existing Source)
- 9 VAC 5-50-130 Odor (New/ Modified Source)
- 9 VAC 5-50-160 Emission Standards for Toxic Pollutants (New/ Modified Source)

(9 VAC 5-80-110 N & 9 VAC 5-80-300)